APPENDIX

TO

SYSTEM OF DISSECTIONS,

PART FIRST;

CONTAINING

ADDITIONAL DESCRIPTIONS

OF THE

ABDOMINAL MUSCLES.

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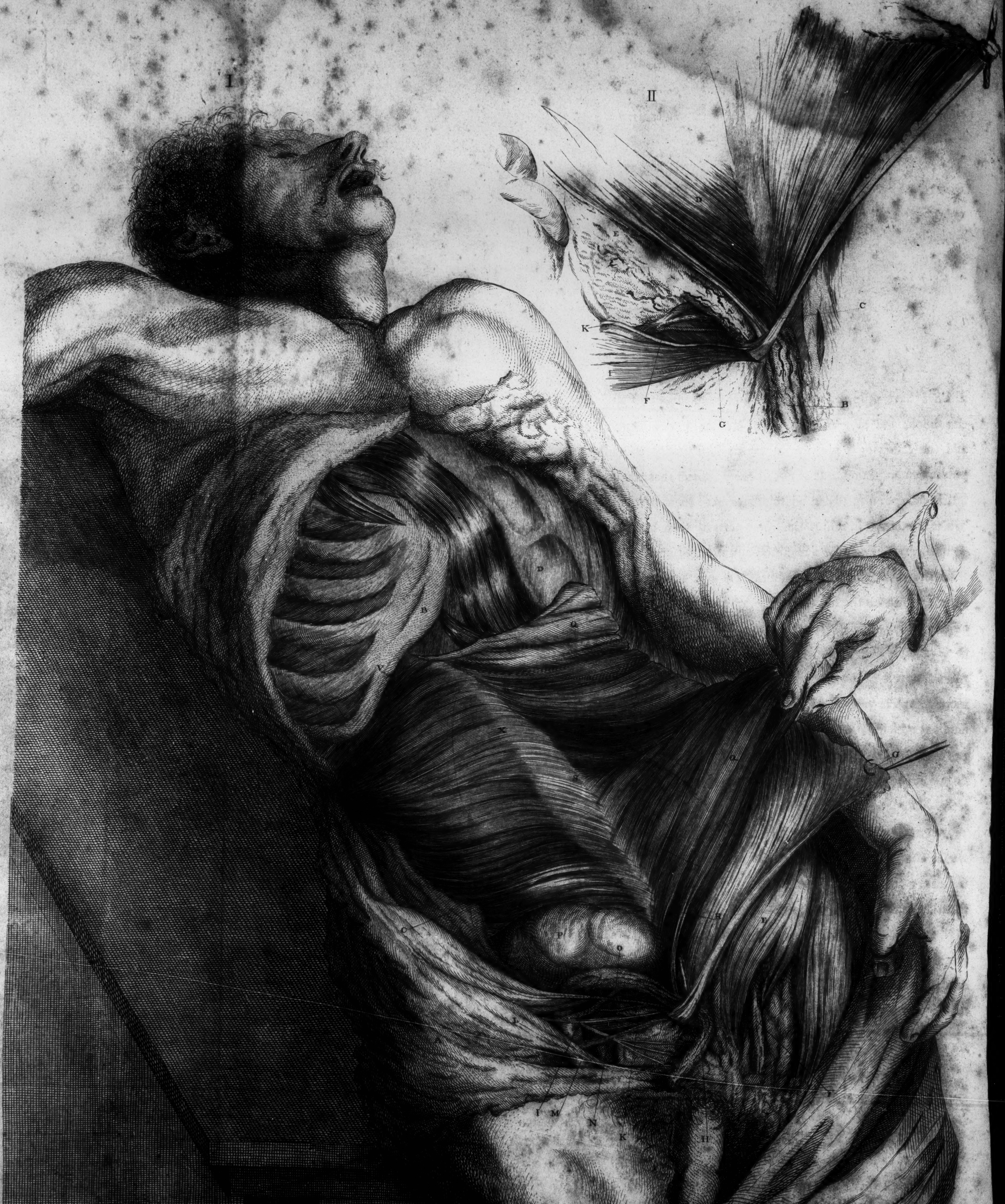

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APPENDIX.

As I have propoſed to take every poſſible opportunity of correcting and amending the deſcriptions of this book, and of giving additional Tables, I was happy to have it in my power, during laſt winter, to add the following Plate, drawn from a very ſtrong and well-proportioned ſubject, as it lay diſſected for public demonſtration. It is not in every ſubject that we find theſe muſcles ſtrong and eaſily diſſected; but in ſailors, eſpecially in boatmen, we have them particularly well marked; for, in conſequence of their habitual exertion in raiſing the lower parts of their bodies by their arms, or in pulling at the oar, the abdominal muſcles acquire a maſſineſs and ſtrength not to be ſeen in other workmen.

In the firſt Plate, the EXTERNAL OBLIQUE MUSCLE (B b b) and its tendons, with the more ſuperficial parts, are ſeen on the left ſide, while, on the right ſide, the EXTERNAL OBLIQUE MUSCLE (F f) being diſſected off, the RECTUS and the INTERNAL OBLIQUE MUSCLES (D E), are ſeen. But to underſtand the anatomy of theſe muſcles, and of the parts connected with them; to underſtand, in particular, the anatomy of the ring, and the nature of the tendinous lines, the linea ſemilunaris, and the linea alba; it is neceſſary to have a more complete view of the diſſection of the internal layers of muſcles.—In this additional Plate of the abdominal muſcles, therefore, the right ſide of the body is ſhewn further diſſected than in the firſt Plate—The EXTERNAL OBLIQUE, which is held out by the hook, and the INTERNAL OBLIQUE, which is held out by the fingers of the diſſecter, are diſſected up from their places, ſo as to ſhew the TRANSVERSALIS MUSCLE lying in its place—We ſee all the connexions of the muſcles at the LINEA SEMILUNARIS; we ſee the deficiency of the TRANSVERSALIS MUSCLE on the lower part, and the bowels protruding, covered only by the PERITONEUM; we ſee alſo the manner in which the RING is formed by the tendon of the external oblique; the origin of the CREMASTER MUSCLE; the manner in which the cord lies in the groove of Paupart's ligament; and the ſituation of the EPIGASTRIC ARTERY.

In Fig. 2. we have an enlarged view of this internal ſtructure of the ring, the relative ſituation of the ſpermatic cord, cremaſter muſcle, and epigaſtric artery. In this view of the parts we ſee only the tendon of the external oblique raiſed, fibres of the internal oblique in their natural ſituation, and the cremaſter muſcle derived from them.

EXPLANATION OF ADDITIONAL PLATE I.

To bring the parts into the ſituation in which they are now preſented to us, we diſſect in the manner deſcribed, page 6. under the title of Second Stage of Diſſection.—Here the external oblique muſcle of the right ſide is diſſected from its ſerrated origins upon the ribs, and from its origin from the ſpine of the OS ILII, and folded back; and as it is taken up, it is cut from its connexions at Paupart's ligament, with the faſcia of the thigh, ſo as to be left at its final inſertion into the creſt of the os PUBIS. When the external oblique is diſſected up, until we find its tendon intimately connected at the linea ſemilunaris, we then ſee the internal oblique muſcle, which is marked in the firſt Plate D E, taking its origin from the os ilium, and ſpreading its fibres upwards to the ribs directly acroſs to the linea ſemilunaris, and obliquely downwards to the pubis; at the lower angle we ſee the fibres paſſing off from this muſcle to form the cremaſter muſcle. We then cut this muſcle from its origin, and diſſect it back as we have done the external oblique muſcle; betwixt the layers of theſe muſcles there is much adipoſe membrane, which muſt be carefully diſſected, as I have formerly deſcribed.

A A, THE INTEGUMENTS diſſected from the belly.

B, THE RIBS of the right ſide.

C, THE SPINE of the ilium.

D, The TENDON of the EXTERNAL OBLIQUE MUSCLE of the left ſide, where it forms the ſheath of the rectus muſcle.

E, THE LOWER PORTION OF THE TENDON OF THE RIGHT SIDE, going down to form the RING.

F, THE SPERMATIC CORD of the ſame ſide.

G, That part of the EXTERNAL OBLIQUE MUSCLE of the right ſide, which takes its origin from the OS ILIUM, held out by the hook.

H, The TENDON of the EXTERNAL OBLIQUE MUSCLE, where it is inſerted into the creſt of the OS PUBIS. What is ſaid in page 98. and 99. under the title of the LIGAMENT OF THE THIGH, and its connexion with the ABDOMINAL RING, will now be fully underſtood; for it may be ſeen here, that that portion of the tendon of the ABDOMINAL MUSCLE, which forms the lower PILLAR OF THE RING, is inſerted flat and horizontally into the os PUBIS; ſo that when the tendon is in its natural ſituation, the ſpermatic cord lies in it as in a groove, and when cutting up the femoral ligament, or Paupart's ligament, as it is called, to free the CRURAL HERNIA from ſtricture (I ſpeak from experiments on the dead body), if we carry our knife obliquely inwards, ſo as to avoid the apparent direction of the epigaſtric artery, we cut upon the cord before we have cut through the ligament.

I, THE SPERMATIC CORD, coming out from amongſt the fat, and from under the peritoneum. It is ſeen to proceed obliquely downwards, and to paſs over the tendon H into the ſcrotum. There appears no veſtige of the original formation of the coats of the teſticle, as explained in page 79.

K, Small nerves paſſing from the lumbar nerves to the ſpermatic cord.

L, Fibres of the FASCIA OF THE THIGH, which were connected irregularly with the tendon of the EXTERNAL OBLIQUE.

M, THE FEMORAL ARTERY.

N, The great FEMORAL VEIN.

O, The EPIGASTRIC ARTERY. It is this artery which is marked Plate I. fig. 2. and it is ſeen there, that in the femoral hernia, this artery muſt ſtretch over the neck of the protruding ſac. Although there be no inſtances of this artery being cut in the operation for femoral hernia, yet we ought carefully to attend to it; for in all probability the caution which has been hitherto inculcated, in regard to this artery, has been a principal cauſe of its never having been cut. But, indeed, if we attend to the natural ſituation of the parts before the ligament is nicely diſſected, we ſhall ſee, that the femoral artery gives off this epigaſtric branch ſome way higher up than the edge of the ligament, and the artery taking its direction obliquely upwards, is conſiderably removed from the knife when the tendon is to be cut in the middle betwixt the ſpermatic cord and the femoral artery.

Beſides, in the crural hernia, it will be always ſufficient to cut the neck of the ſac, and the inflamed and condenſed cellular membrane, ſcarcely ſnipping the edge of the tendon. Here, too, it may be obſerved, the edge of the tendon is protruded downwards from its natural ſituation. It may be obſerved alſo, that it is the ſwelling of the ſofter and more vaſcular parts conſtricted by the tendon which cauſes incarceration, or ſometimes the flatus or fæces collected in the protruded gut itſelf. See further what is ſaid, page 82. under the title of METHOD OF DISSECTING HERNIÆ.

Another circumſtance may be obſerved in this figure regarding the femoral ligament: That what has been obſerved by ſome authors of the ſtricture of the femoral hernia, viz. that it is not upon the external margin of the ligament that the tenſion is found, but more internally under the ligament, and towards the pubis, is not a conceit, but likely to happen from the natural ſtate of the parts; this ſtrangulation being evidently the inner margin of that broad horizontal inſertion of the tendon into the bone.

But in all the caſes in which I have had an opportunity of diſſecting femoral hernia, the patients have been females; and the parts were ſo inflamed and condenſed together, that I could ſcarcely diſtinguiſh the courſe of the epigaſtric artery. In thoſe caſes where I would have been moſt attentive to this circumſtance, the operation had been unſucceſsfully performed, or there had been extenſive ſinuſes from the mortification of the gut and the eſcape of the fæces, which prevented me from obſerving what really formed the ſtrangulation. It muſt be recollected, that in diſſecting the tendon of the pſoas parvus muſcle, we ought to attend to its inſertion into the os pubis, and connection with the tendon of the external oblique; for in all likelihood the deficiency in the pillars of the ring, occaſioning hernia, depends upon this connexion, perhaps in ſome caſes the want of this muſcle.

P, The peritoneum ſeen, with the inteſtines ſhining under it. This outer ſurface of the peritoneum is not ſmooth like the inner ſurface, which allows the inteſtines to glide ſmoothly under it, for it here is connected with the muſcles by cellular membrane. It is here that inflammation, in conſequence of wounds, or after the operation for the ſtone or puerpueral inflammation, ſometimes forms extenſive abſceſſes.

Q Q, The INTERNAL OBLIQUE, held out by the hand of the diſſecter.

R, CREMASTER MUSCLE, being a faſciculus of fibres derived from the laſt muſcle.

S, INSERTION of the INTERNAL OBLIQUE into the LINEA SEMILUNARIS, or rather the union and intermixing of the fibres of this muſcle with the tendons of the other muſcles at this line.

T, The TRANSVERSALIS ABDOMINIS. Its ſtrong fleſhy fibres are ſeen to run directly acroſs the belly. It ariſes from the ſix lower ribs forming indigitations with the DIAPHRAGM from the tranſverſe proceſſes of the four lower lumbar vertebræ, and from the ſpine of the ilium.

X X, The termination of the muſcular part of the TRANSVERSALIS MUSCLE before mingling its tendon with that of the INTERNAL OBLIQUE, S.

V, That part of the MUSCLE which ariſes from the ribs.

The origin of the RECTUS MUSCLE from the ſyphoid cartilage, and the mixing of its fibres with the great pectoral muſcle, is diſtinctly ſeen.

EXPLANATION OF FIG. II.

In this figure we have an enlarged and more diſtinct view of the diſſection of the ABDOMINAL RING.

A, The SPERMATIC CORD emerging from the fat, and from under the PERITONEUM.

B, The SPERMATIC CORD after it has paſſed the tendon of the EXTERNAL OBLIQUE MUSCLE.

C, The TENDON of the EXTERNAL OBLIQUE MUSCLE.

D, The FIBRES of the INTERNAL OBLIQUE MUSCLE.

E, The CREMASTER MUSCLE ; being a few muſcular fibres derived from the INTERNAL OBLIQUE MUSCLE, and deſcending through the RING, and expanding upon the CORD.

F, The EPIGASTRIC ARTERY.

G, A branch of the EPIGASTRIC ARTERY going to the cord.

I, Fibres of the faſcia of the thigh.

K, A branch of the inguinal nerves going to the cord.

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